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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: H. AKIMOTO et al.

Serial No.: 09/975,934

Filed: October 15, 2001

For: IMAGE DISPLAY DEVICE (As Amended)

Art Unit: 2674

Examiner: R. Liang

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REPLY BRIEF

Assistant Commissioner for Patents  
Washington, D.C. 20231

February 13, 2003

Sir:

In connection with the above-identified application, this Reply Brief is being submitted in triplicate in response to the Examiner's Answer of December 13, 2002.

ARGUMENT

In response to arguments presented in the Appeal Brief of November 25, 2002, the Examiner states as follows on page 3 of the Examiner's Answer of December 13, 2002:

Appellants' remarks regarding the 101 double patenting are not persuasive. Appellants alleges "the term AND functional circuit recited in independent application claims 1, 10 and 14-15 is not limited to an implementation with a digital circuit, but means any

circuit which performs an AND function, and may be implemented with either a digital circuit, or with an analog circuit, such as, for example, an operational amplifier" (page 8 of the Brief), however, the specification only discloses an AND gate circuit 47 for performing an AND function and is implemented with a logical circuit, the specification does not disclose or include any analog circuit (such as an operational amplifier as alleged by appellants) which performs an AND function.

As recognized by the Examiner, the specification uses the term "AND gate circuit" to describe element 47 in Fig. 2. However, element 47 in Fig. 2 is merely the standard symbol which represents an AND function, and does not indicate any particular structure which is used to implement the AND function.

Furthermore, it is submitted that the specification does not disclose that AND gate circuit 47 in Fig. 2 is implemented with a logical circuit as alleged by the Examiner. The only description of the structure of AND gate circuit 47 in the specification appears in the paragraph on page 8, line 16, through page 9, line 21, of the specification which was replaced by the replacement paragraph which appears on pages 3-4 of the preliminary amendment of October 15, 2001, and reads as follows in pertinent part, wherein the following language appears in the specification as originally filed:

The AND gate circuit 47 and the TFT switch 48 are formed by a CMOS process of a poly-Si TFT.

It is submitted that nothing whatsoever in this passage or in any other portion of the specification supports the Examiner's allegation that AND gate circuit 47 in Fig. 2 is implemented with a logical circuit.

With respect to the Examiner's statement that "the specification does not disclose or include any analog circuit (such as an operational amplifier as alleged by appellants) which performs an AND function", it is submitted that this statement is irrelevant to the issue of whether claims 1-15 of the present application claim the same invention as patent claims 1-9 and 11-16 in the sense of 35 USC 101 because claims 1-15 of the present application do not recite an analog circuit which performs an AND function.

Element 47 in Fig. 2 is merely the standard symbol which represents an AND function. Accordingly, it is submitted that the appellants are entitled to claim element 47 as broadly as possible consistent with its representation of an AND function. That is what the appellants have done in independent claims 1, 10, and 14-15 of the present application by reciting element 47 in Fig. 2 as an AND functional circuit.

As discussed in the first full paragraph on page 7 of the Appeal Brief of November 25, 2002, it is submitted that the term AND functional circuit recited in application claims 1, 10, and 14-15 of the present application is broader than the term AND logical circuit recited in independent patent claims 1, 11, and 15-16, such that there are embodiments of the invention which fall within the scope of application claims 1-15 but do not fall within the scope of patent claims 1-9 and 11-16.

By "embodiments of the invention", the appellants mean embodiments which fall within the scope of the claims, not embodiments which are explicitly disclosed in the specification. The claims define the invention, and accordingly

it is submitted that any embodiment which falls within the scope of the claims is an embodiment of the invention regardless of whether that embodiment is explicitly disclosed in the specification.

The aspect of element 47 in Fig. 2 which is part of the invention recited in independent claims 1, 10, and 15-16 of the present application is the AND function provided by element 47 in Fig. 2, not what type of circuit is used to implement the AND function provided by element 47, such that in the invention recited in independent claims 1, 10, and 15-16 of the present application, it is immaterial whether the AND function provided by element 47 in Fig. 2 is implemented with a digital circuit, or with an analog circuit. That is why the appellants have recited element 47 in Fig. 2 as an AND functional circuit in independent claims 1, 10, and 14-15 of the present application.

In contrast, independent patent claims 1, 11, and 15-16 recite element 47 in Fig. 2 as an AND logical circuit. As discussed in the first full paragraph on page 8 of the Appeal Brief of November 25, 2002, it is submitted that one of ordinary skill in the art might arguably interpret the term AND logical circuit recited in independent patent claims 1, 11, and 15-16 to mean a logical circuit which performs an AND function and is implemented with a digital circuit.

Accordingly, in order to compensate for the possibility that the scope of independent patent claims 1, 11, and 15-16 might be unduly limited by such an arguable interpretation of the AND logical circuit recited in independent patent claims 1, 11, and 15-16, independent claims 1, 10, and 14-15 of the present application recite element 47 in Fig. 2 as an AND functional circuit, thereby

reciting the aspect of element 47 in Fig. 2 which is part of the present invention, i.e. the AND function provided by element 47 in Fig. 2. It is submitted that an AND functional circuit which is implemented with a digital circuit and an AND functional circuit which is implemented with an analog circuit both fall within the scope of the AND functional circuit recited in independent claims 1, 10, and 14-15 of the present application.

Furthermore, the Examiner states as follows on pages 3-4 of the Examiner's Answer of December 13, 2002:

Appellants argues "that an embodiment of the present invention including an analog circuit which performs an AND function would fall within the scope of independent application claims 1, 10, and 14-15 and dependent application claims 2-9 and 11-13 depending from independent application claims 1 and 10", however, it is not seen anywhere in the specification or elsewhere in the application that supports appellants' position that the "AND gate 47" is implemented with an analog circuit. Therefore, in light of the specification, both the AND logical circuit in the patented claims and the AND functional circuit in the present claims are directed to the same AND gate circuit 47, there is no any other AND functional circuit (for example, an operational amplifier alleged by the appellants) to perform the AND function other than the AND gate circuit 47.

However, it is submitted that the appellants did not argue in the Appeal Brief of November 25, 2002, that AND gate circuit 47 in Fig. 2 is implemented with an analog circuit as alleged by the Examiner.

Rather, in the last paragraph on page 8 of the Appeal Brief of November 25, 2002, the appellants argued that an embodiment of the present invention including an analog circuit which performs an AND function would fall within

the scope of independent application claims 1, 10, and 14-15 and dependent application claims 2-9 and 11-13 depending from independent application claims 1 and 10, but would arguably not fall within the scope of independent patent claims 1, 11, and 15-16 and dependent application claims 2-9 and 12-14 depending from independent patent claims 1 and 11 because one of ordinary skill in the art might arguably interpret the term AND logical circuit recited in independent patent claims 1, 11, and 15-16 to mean a logical circuit which performs an AND function and is implemented with a digital circuit.

As discussed above, by "embodiments of the invention", the appellants mean embodiments which fall within the scope of the claims, not embodiments which are explicitly disclosed in the specification. The claims define the invention, and accordingly it is submitted that any embodiment which falls within the scope of claims 1-15 of the present application, such as an embodiment including an analog circuit which performs an AND function, is an embodiment of the invention regardless of whether that embodiment is explicitly disclosed in the specification.

Furthermore, the Examiner states as follows on page 4 of the Examiner's Answer of December 13, 2002:

Furthermore, through the specification appellants have never ever used the terms "functional" or "analog" at all, clearly an indication that such was never intended to be in the originally specification and that the use of such terms in the present continuation application is an afterthought.

It is submitted that the fact that the specification does not use the term "analog" in describing element 47 in Fig. 2 which performs an AND function is

irrelevant to the issue of whether claims 1-15 of the present application claim the same invention as patent claims 1-9 and 11-16 in the sense of 35 USC 101 because claims 1-15 of the present application do not recite an analog circuit which performs an AND function.

Furthermore, it is submitted that the term "functional" in the term AND functional circuit recited in independent claims 1, 10, and 14-15 of the present application is clearly supported by the standard symbol representing an AND function which is used to represent element 47 in Fig. 2.

Furthermore, the Examiner states as follows on page 4 of the Examiner's Answer of December 12, 2002:

As admitted by appellants on page 7 to page 8 line 7, that the AND logical circuit is a digital circuit in the patent and its specification, therefore the use of the term "functional" in light of the same specification would only lead to one conclusion that the term "functional" is the same as that of "logical" with both referring to the same logical AND gate 47 and no possibility of any other circuits such as analog circuits. Hence, the present claims and the patented claims are directed to the same invention and are properly rejected under 35 U.S.C. 101.

However, it is submitted that the appellants did not admit that "the AND logical circuit is a digital circuit in the patent and its specification" on page 7 to page 8, line 7, of the Appeal Brief of November 25, 2002, as alleged by the Examiner. Rather, the appellants stated as follows in the paragraph on page 8, lines 4-7, of the Appeal Brief of November 25, 2002:

In light of this, it is submitted that one of ordinary skill in the art might arguably interpret the term AND logical circuit recited in independent patent claims 1, 11, and 15-16 to mean a logical circuit which

performs an AND function and is implemented with a digital circuit.

As is readily apparent from this passage, the appellants did not admit that the AND logical circuit recited in independent patent claims 1, 11, and 15-16 is a digital circuit as alleged by the Examiner, but merely pointed out that one of ordinary skill art might arguably interpret the AND logical circuit recited in independent patent claims 1, 11, and 15-16 to be implemented with a digital circuit.

Accordingly, as discussed above, in order to compensate for the possibility that the scope of independent patent claims 1, 11, and 15-16 might be unduly limited by such an arguable interpretation of the AND logical circuit recited in independent patent claims 1, 11, and 15-16, independent claims 1, 10, and 14-15 of the present application recite element 47 in Fig. 2 as an AND functional circuit, thereby reciting the aspect of element 47 in Fig. 2 which is part of the present invention, i.e. the AND function provided by element 47 in Fig. 2.

It is submitted that an AND functional circuit which is implemented with a digital circuit and an AND functional circuit which is implemented with an analog circuit both fall within the scope of the AND functional circuit recited in independent claims 1, 10, and 14-15 of the present application, whereas an AND functional circuit which is implemented with an analog circuit arguably might not fall within the scope of the AND logical circuit recited in independent patent claims 1, 11, and 15-16, such that claims 1-15 of the present application

do not claim the same invention as patent claims 1-9 and 11-16 in the sense of 35 USC 101.

Furthermore, the Examiner states as follows on page 4 of the Examiner's Answer of December 12, 2002:

Appellants' remarks regarding MOSFET transistor and a transistor on pages 11 are not persuasive since it is appellants' own interpretation and hence is irrelevant to this application.

However, it is submitted that the appellants' remarks on pages 11-12 of the Appeal Brief of November 25, 2002, relating to a MOSFET transistor and a transistor are in fact relevant to the present application because these remarks discuss a hypothetical example in which application claims reciting a transistor do not claim the same invention as patent claims reciting a MOSFET transistor in the sense of 35 USC 101 under the literal infringement test set forth in MPEP 804 despite the fact that the specification to which the application claims and the patent claims are directed discloses only a MOSFET transistor, which is exactly analogous to the present situation in which application claims 1-15 reciting an AND functional circuit do not claim the same invention as patent claims 1-9 and 11-16 reciting an AND logical circuit in the sense of 35 USC 101 under the literal infringement test set forth in MPEP 804 despite the fact that the specification to which application claims 1-15 and patent claims 1-9 and 11-16 are directed discloses only an AND gate circuit.

The purpose of the appellants' remarks on pages 11-12 of the Appeal Brief of November 25, 2002, is to show that the Examiner's position that the term AND functional circuit in independent application claims 1, 10, and 14-15

and the term AND logical circuit in independent patent claims 1, 11, and 15-16 have the same scope because they both read on AND gate circuit 47 in Fig. 2 which is the only AND circuit disclosed in the application is improper and contrary to law because the test for a statutory double patenting rejection under 35 USC 101 is not whether terms in two claims read on the same element in the disclosure as in the Examiner' position, but whether the terms in the two claims have different scopes under the literal infringement test set forth in MPEP 804.

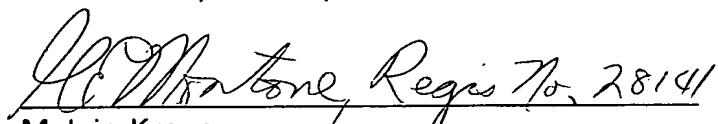
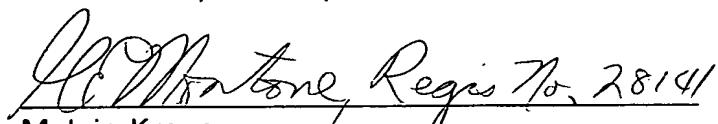
### CONCLUSION

For the reasons set forth above and in the Appeal Brief of November 25, 2002, it is submitted that claims 1-15 of the present application do not claim the same invention as claims 1-9 and 11-16 of U.S. Patent No. 6,329,973 in the sense of 35 USC 101.

Accordingly, it is respectfully requested that the rejection of claims 1-15 under 35 USC 101 as claiming the same invention as that of claims 1-9 and 11-16 of U.S. Patent No. 6,329,973 be reversed.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

  
for   
Melvin Kraus  
Registration No. 22,466

MK/RSS  
(703) 312-6600